MULTIMEDIA UNIVERSITY

STUDENT ID NO

MULTIMEDIA UNIVERSITY

FINAL EXAMINATION

TRIMESTER 2, 2018/2019

TIA2221 – INFORMATION ASSURANCE & SECURITY

(All Sections / Groups)

4 MARCH 2019
9.00 a.m – 11.00 a.m
(2 Hours)

INSTRUCTIONS TO STUDENT

1. This Question paper consists of 3 pages with 5 Questions only.

2. Attempt **ALL** questions. All questions carry equal marks (10) and the distribution of the marks for each question is given.

3. Please print all your answers in the Answer Booklet provided.

Question 1

1a) Define the following information assurance principles that enable us to implement the Maconachy-Schou-Ragsdale (MSR) model.

(i) Robust Approach **[2 marks]**
(ii) Reassessed Periodically **[2 marks]**

1b) State **FOUR (4)** implications from lack of information assurance. **[4 marks]**

1c) What are the main responsibilities of a Chief Security Officer (CSO)? **[2 marks]**

Question 2

2a) What is the evidence of nonrepudiation of source which prevents subsequent denial of sending the message? Justify why it can be the evidence. **[3 Marks]**

2b) What is the difference between Spamming and Phishing? **[4 marks]**

2c) Compare and contrast dual control and the two-person rule. **[3 marks]**

Question 3

3a) Describe the main determining factor for deciding whether a top-down or bottom-up approach is more suitable in implementing information assurance for an organisation? **[3 marks]**

3b) When outsourcing or using cloud services, which kind of information assurance approach should be adopted? Justify your answer. **[3 marks]**

3c) What is organisational maturity? State **ONE (1)** existing organisational maturity model and provide its areas of focus. **[4 marks]**

Continued...

Question 4

4a) Describe **FIVE (5)** internal supply chain exposures and vulnerabilities.

[5 Marks]

4b) Describe **THREE (3)** steps can an organisation take to manage its risk to reputation?

[3 Marks]

4c) An employee leaves the company and starts working for a competitor. In a short amount of time, the competitor releases a new formula that your company was working on for months. How could a forensic expert help you?

[2 Marks]

Question 5

5a) Identify **FOUR (4)** characteristics of an effective measurement tool for information assurance.

[4 Marks]

5b) Describe reasons why online services can benefit from public-key cryptography? Why is symmetric key cryptography alone not suitable for online services?

[4 Marks]

5c) Is all malware operating system specific?

[2 Marks]

End of Paper